

Title (en)  
IMIDAZOLE COMPOUND PRODUCTION METHOD, IMIDAZOLE COMPOUND, IMIDAZOLE-BASED COMPOUND, ORGANIC METAL COMPLEX, MATERIAL FOR ORGANIC ELECTROLUMINESCENT ELEMENT, ORGANIC ELECTROLUMINESCENT ELEMENT, DISPLAY DEVICE, AND LIGHTING DEVICE

Title (de)  
HERSTELLUNGSVERFAHREN FÜR EINE IMIDAZOLVERBINDUNG, IMIDAZOLVERBINDUNG, IMIDAZOLBASIERTE VERBINDUNG, ORGANISCHER METALLKOMPLEX, MATERIAL FÜR EIN ORGANISCHES ELEKTROLUMINESZIERENDES ELEMENT, ELEKTROLUMINESZIERENDES ELEMENT, ANZEIGEVORRICHTUNG UND BELEUCHTUNGSVORRICHTUNG

Title (fr)  
PROCÉDÉ DE PRODUCTION DE COMPOSÉ IMIDAZOLE, COMPOSÉ IMIDAZOLE, COMPOSÉ À BASE D'IMIDAZOLE, COMPLEXE DE MÉTAL ORGANIQUE, MATÉRIAU POUR ÉLÉMENT ÉLECTROLUMINESCENT ORGANIQUE, ÉLÉMENT ÉLECTROLUMINESCENT ORGANIQUE, DISPOSITIF D'AFFICHAGE ET DISPOSITIF D'ÉCLAIRAGE

Publication  
**EP 2662365 A4 20140611 (EN)**

Application  
**EP 12732174 A 20120105**

Priority  
• JP 2011002083 A 20110107  
• JP 2011002084 A 20110107  
• JP 2012050087 W 20120105

Abstract (en)  
[origin: EP2662365A1] A manufacturing method of an imidazole compound represented by a formula (1) below includes reacting 1-arylimidazole with a halogen-atom substituted compound. For performing this reaction, in a reaction system, a mole number N f(2) [mol] of the halogen-atom substituted compound and a total volume V sol [liter] of an ether solvent having at most 5 carbon atoms satisfy a relationship of V sol /N f(2) #≠3. In the formula (1): R 1 and R 4 represent a substituent and the like; Z 1 represents a group of atoms necessary for forming a hydrocarbon cyclic group and the like; R 2 and R 3 represent a bond, a hydrogen atom or an aromatic hydrocarbon group; Z 2 represents a group of atoms necessary for forming a five-membered hydrocarbon ring and the like together with C-C; and m represents an integer of 1 to 5.

IPC 8 full level  
**C07D 233/58** (2006.01); **C07D 403/04** (2006.01); **C07D 403/14** (2006.01); **C07D 405/04** (2006.01); **C09K 11/06** (2006.01); **H01L 51/50** (2006.01)

CPC (source: EP KR US)  
**C07D 233/58** (2013.01 - EP KR US); **C07D 403/04** (2013.01 - EP KR US); **C07D 403/14** (2013.01 - EP KR US); **C07D 405/04** (2013.01 - EP KR US); **C07D 405/10** (2013.01 - KR US); **C07F 7/0812** (2013.01 - EP US); **C07F 7/0896** (2013.01 - EP US); **C07F 15/0033** (2013.01 - EP US); **C07F 15/0073** (2013.01 - EP US); **C09K 11/06** (2013.01 - EP US); **H05B 33/14** (2013.01 - EP US); **H10K 59/32** (2023.02 - KR); **H10K 85/381** (2023.02 - EP KR US); **H10K 85/60** (2023.02 - EP KR); **H10K 85/654** (2023.02 - EP KR US); **H10K 85/6572** (2023.02 - EP KR US); **H10K 85/6574** (2023.02 - EP KR US); **C09K 2211/1007** (2013.01 - EP US); **C09K 2211/1044** (2013.01 - EP US); **C09K 2211/185** (2013.01 - EP US); **H10K 50/00** (2023.02 - US); **H10K 50/11** (2023.02 - EP KR)

Citation (search report)  
No further relevant documents disclosed

Cited by  
CN112805286A; US11479565B2; WO2020074560A1

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)  
**EP 2662365 A1 20131113; EP 2662365 A4 20140611**; CN 103443081 A 20131211; KR 20130140810 A 20131224; TW 201233675 A 20120816; US 2013270541 A1 20131017; WO 2012093688 A1 20120712

DOCDB simple family (application)  
**EP 12732174 A 20120105**; CN 201280004652 A 20120105; JP 2012050087 W 20120105; KR 20137017116 A 20120105; TW 101100395 A 20120105; US 201213978406 A 20120105